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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,170	01/24/2005	Karl Skjonnemand	MERCK-2965	3628

23599 7590 06/16/2006

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EXAMINER

CHUNG, DAVID Y

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 06/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/522,170

Applicant(s)

SKJONNEMAND ET AL.

Examiner

David Y. Chung

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>24 January 2005</u> . | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**1. Claims 1-11 rejected under 35 U.S.C. 103(a) as being unpatentable over Hanelt et al. (U.S. 5,827,449).**

As to claim 1, Hanelt discloses a film comprising liquid crystalline material having a cholesteric phase with a pitch preferably between 100nm and 400 nm. See column 2, lines 39-49 and column 9, lines 10-40. Hanelt discloses that the axis of the helix can be parallel or perpendicular to the film surface. See column 9, lines 33-35. Hanelt teaches that the cholesteric liquid crystal layer of this type has negative birefringence. See column 1, lines 32-35.

Hanelt does not disclose that the helical pitch is 200 nm or less but discloses an overlapping range of 100 nm to 400 nm. It would have been obvious to one of ordinary skill in the art at the time of invention to make the helical pitch less than 200 nm, since it has been judicially determined that a prima facie case of obviousness exists in cases where the claimed ranges overlap or lie inside ranges disclosed by the prior art. See *In*

*re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990).

As to claims 2 and 3, Hanelt does not disclose that the helical pitch is 50 to 200 nm or 55 to 175 nm but discloses an overlapping range of 100 nm to 400 nm. It would have been obvious to one of ordinary skill in the art at the time of invention to make the helical pitch less than 200 nm, since it has been judicially determined that a prima facie case of obviousness exists in cases where the claimed ranges overlap or lie inside ranges disclosed by the prior art. See *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990).

As to claim 4, Hanelt discloses that the cholesteric liquid crystal platelets comprise liquid crystal material that is preferably cross-linked. See column 10, lines 9-29.

As to claims 5-7, Hanelt discloses that the mean alignment of the mesogens in the vicinity of the film surface can be parallel or perpendicular to the film surface or inclined at an angle between 0 and 90 degrees to the film surface. See column 9, lines 32-39. Hanelt teaches that the disclosed film can be used as a compensator by placing it between an LCD cell and polarizer. See column 12, lines 5-15.

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As to claims 8-10, Hanelt teaches that the disclosed film can be used as a compensator by placing it between an LCD cell and polarizer. See column 12, lines 5-15.


As to claim 11, Hanelt teaches that the disclosed films are particularly suitable for improving view-angle dependence of twisted nematic (TN) liquid crystal displays.

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***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Chung whose telephone number is (571) 272-2288. The examiner can normally be reached Monday-Friday 9:30 am to 6:00 pm.

David Chung  
GAU 2871  
06/11/06

  
**ANDREW SCHECHTER**  
**PRIMARY EXAMINER**